

REMARKS/ARGUMENTS

Claims 45-53 are pending. Claims 1-44 were canceled by preliminary amendment dated October 26, 2004. Please cancel claims 54-67, without prejudice to file in a divisional application. Claim 45 has been amended herein.

The undersigned wishes to thank Examiner Ogden for the courtesies extended in the telephone interview on October 18, 2005, where the Office Action mailed July 27, 2005 and the pending claims were discussed. It is understood that the Examiner will be issuing an Interview Summary with regard to that discussion. Further, Examiner Ogden has asked Applicant to include a brief summary of the interview in the present Amendment and Response.

Brief Summary of Telephone Interview of October 18, 2005

Applicant summarized the prosecution history of the application. Examiner Ogden considered claim 45 and asserted that amendment to the tannic acid content range would clarify that the tannic acid is present in the aqueous composition. Examiner Ogden also asserted that claim 45, as written, was unclear as to whether the gallic acid content related to the tannic acid or to the aqueous composition.

Applicant noted that the Office Action mailed July 27, 2005, failed to set forth a proper rejection based upon inherency, but stated that submission of evidence of non-inherency would be preferable to appeal. Applicant offered to submit publicly-available technical specifications of commercially-available tannic acids showing that the recited limitation of gallic acid content was not inherent in commercially-available tannic acids. Examiner Ogden noted that this was the type of evidence that could be persuasive as to lack of inherency and agreed to consider the publicly-available technical specifications of commercially-available tannic acids.

Elected and Withdrawn Claims

The Office Action mailed July 27, 2005, erroneously states that claims 46-53 have been withdrawn. Review of the prosecution history indicates that claims 45-53 were elected and that

claims 54-67 have been withdrawn from further consideration as being drawn to a non-elected invention. Applicant, therefore, assumes that the statement in the Office Action mailed July 27, 2005, contains a typographical error and that claims 54-67, not claims 46-53, were withdrawn. This agrees with the listing on the Office Action Summary page.

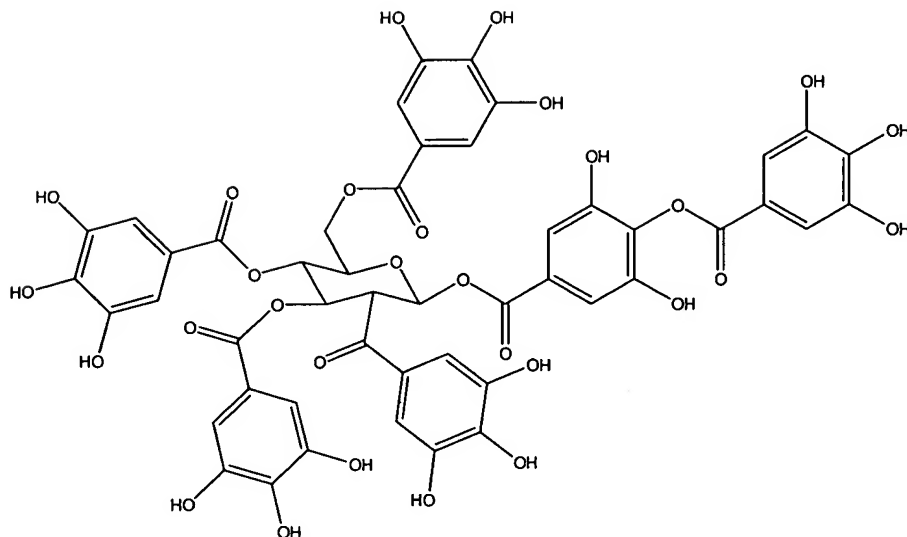
Claim Amendments

Claim 45 has been amended herein to recite an aqueous treating composition comprising tannic acid having a gallic acid content of less than about 3.0 parts by weight (pbw), based on the weight of the tannic acid, wherein the tannic acid is present in the aqueous treating composition in a concentration of from greater than 0 pbw to about 0.5 pbw, based on a total weight of the aqueous treating composition. The element “based on the weight of the tannic acid” has been added to clarify that the gallic acid content is relative to the weight of tannic acid in the aqueous composition. The element “the tannic acid is present in the aqueous treating composition in a concentration of from greater than 0 pbw to about 0.5 pbw” has been amended to clarify that tannic acid is present in the aqueous composition.

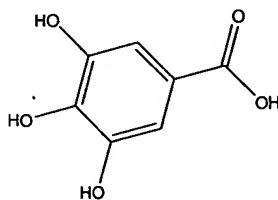
Claim rejections under 35 U.S.C. § 102

The Office Action has maintained the rejection of claim 45, and various dependent claims, under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,842,646 to Gamblin (“Gamblin”) or by U.S. Patent No. 5,738,688 to DeLathauwer (“DeLathauwer”) because each reference discloses an aqueous composition comprising, *inter alia*, a tannic acid.

Tannic acids are well known in the art and comprise compounds derived from nutgalls having a structure of polygalloylglucose or polyalloylquinic acid. Tannic acid can have, for example, the following structure:



Gallic acid is one component of tannic acid that can be present in commercially-available tannic acids and has the following structure:



To anticipate a claim under 35 U.S.C. §102(b), each and every element of the claim must be disclosed in the cited reference. MPEP § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”) and *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (“The identical invention must be shown in as complete detail as is contained in the ... claim.”)).

Amended claim 45 recites “tannic acid having a gallic acid content of less than about 3.0 parts by weight (pbw), based on the weight of the tannic acid.” In contrast, both Gamblin and DeLathauwer fail to disclose tannic acid having a gallic acid content of less than about 3.0 parts by weight. The general disclosure of “tannic acid” does not anticipate the presently claimed

tannic acid having the recited content of gallic acid. *See Akzo N.V. v. International Trade Comm*, 808 F.2d 1471 (Fed. Cir. 1986) (holding that a prior art disclosure of sulfuric acid did not anticipate a claim reciting 98% sulfuric acid).

Further, the disclosure of a tannic acid having a gallic acid content of less than about 3.0 parts by weight is not inherent in the disclosure of “tannic acid.” To establish inherency, it must be clear that the missing descriptive matter (that is, at least the recited gallic acid content of tannic acid) is *necessarily present* in the thing described in the prior art reference. The mere fact that a certain thing may result from a given set of circumstances is insufficient to prove anticipation. *In re Robertson*, 169 F.3d 743 (Fed. Cir. 1999); *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991). Indeed, inherency is not established by possibilities or probabilities. *Standard Oil Co. (Indiana) v. Montedison, S.p.A.*, 664 F.2d 356, 372 (3d Cir. 1981). Thus, to establish that the reference inherently anticipates the claimed invention, the Office Action must show that the general teaching of “tannic acid” in the reference must mean tannic acid with less than 3.0 pbw gallic acid, without question and without variability. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (“In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.”). The Office Action has not established that allegedly inherent characteristic (*i.e.*, a gallic acid content of less than about 3.0 parts by weight) necessarily flows from the teaching (*i.e.*, “tannic acid”) of the cited references.

Even further, a gallic acid content of less than about 3.0 parts by weight cannot be shown to be inherent in the teaching “tannic acid.” Specifically, it is well-known from publicly-available technical specifications of commercially-available tannic acids that the recited limitation of gallic acid content is not inherent in commercially-available tannic acids. For example, Wins Globe Machine Equipment Trading Company offers for sale a tannic acid for dye applications having a gallic acid content of 5% (available at <http://www.winsglobe.com/hgcpyw.htm> and attached hereto as Exhibit A). As another example, Chongqing Foreign Trade East Asia Corporation offers for sale a tannic acid for dyestuff uses having a gallic acid content of <7%

(available at <http://www.eaco.com.cn/html/tannic%20acid/tannic%20acid.htm> and attached hereto as Exhibit B).

Accordingly, the disclosure of “tannic acid” cannot anticipate a tannic acid having a gallic acid content of less than about 3.0 parts by weight and, therefore, the cited references cannot anticipate amended claim 45, because they are silent with respect to the gallic acid content of tannic acid. Likewise, because claims 46-53 depend from amended claim 45, claims 46-53 also include the “gallic acid content of less than about 3.0 parts by weight” feature and, therefore, cannot be anticipated by the cited references.

Moreover, the Gamblin reference does not render the claimed composition obvious. Specifically, the cited reference provides no motivation or suggestion to use “a tannic acid having a gallic acid content of less than about 3.0 parts by weight (pbw), based on the weight of the tannic acid” to practice its disclosed methods. *See* MPEP § 2143 (“The teaching or motivation to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant’s disclosure.”) (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Instead, rather than teaching that the gallic acid content of the tannic acid can be less than about 3.0 parts by weight, Gamblin discourages one of ordinary skill in the art from using a tannic acid having a gallic acid content of less than about 3.0 parts by weight by disclosing that gallic acid can be used interchangeably with tannic acid:

Tannic acid is readily available and relatively inexpensive and is, therefore, a preferred mordant. Other mordants may be prepared by reacting formaldehyde with phenol or salicyclic acid or by reacting sulfur with phenols. Most such mordants are proprietary materials and, generally, their structures are not known. Tamolan A (available from BASF), discussed above, may be a reaction product of sulphur and phenol. Other fixing agents similar to tannic acid (e.g., gallic acid) may also be used.

U.S. Patent No. 4,842,646; column 6; lines 22-31.

There is, therefore, no motivation in Gamblin to use a tannic acid having a gallic acid content of less than about 3.0 parts by weight, and Gamblin cannot render obvious amended claim 45, or those claims dependent upon amended claim 45 (*i.e.*, claims 46-53).

Furthermore, the DeLathauwer reference does not render the claimed composition obvious. That is, DeLathauwer provides no motivation or suggestion to use “a tannic acid having a gallic acid content of less than about 3.0 parts by weight (pbw), based on the weight of the tannic acid” to practice its disclosed methods. In fact, instead of teaching that the gallic acid content of the tannic acid can be less than about 3.0 parts by weight, DeLathauwer discourages one of ordinary skill in the art from using a tannic acid having a gallic acid content of less than about 3.0 parts by weight by disclosing that “[a]ccording to the invention, any commercial tannic acid can be used,” (*see* U.S. Patent No. 5,738,688; column 2; lines 66-67) presumably including the commercially-available tannic acids of Exhibits A and B, which do not have a gallic acid content of less than about 3.0 parts by weight.

Like Gamblin, DeLathauwer fails to provide motivation to use a tannic acid having a gallic acid content of less than about 3.0 parts by weight. Therefore, DeLathauwer cannot render obvious amended claim 45, or those claims dependent upon amended claim 45 (*i.e.*, claims 46-53).

Rejection under 35 U.S.C. § 103(a)

Claims 51 and 53 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,738,688 to DeLathauwer (“DeLathauwer”).

Claims 51 and 53 depend from claim 45 and, therefore, also recite the feature “tannic acid having a gallic acid content of less than about 3.0 parts by weight (pbw), based on the weight of the tannic acid.” As set forth above, DeLathauwer cannot render obvious this feature because, *inter alia*, it fails to disclose or suggest tannic acid having a gallic acid content of less than about 3.0 parts by weight. Therefore, DeLathauwer cannot render obvious claim 51 or claim 53.

CONCLUSION

In light of the above arguments and amendments, the claims are believed to be allowable, and Applicant respectfully requests notification of same. The Examiner is invited and encouraged to directly contact the undersigned if such contact may enhance the efficient prosecution of the application to issuance.

Payment in the amount of \$790.00 for the Request for Continued Examination is enclosed herewith. The payment is to be charged to a credit card and is authorized by the signed, enclosed document entitled: Credit Card Payment Form PTO-2038. No further fee is believed due. However, the Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

NEEDLE & ROSENBERG, P.C.



D. Brian Shortell
Registration No. 56,020

NEEDLE & ROSENBERG, P.C.
Customer Number 23859
(678) 420-9300
(678) 420-9301 (fax)

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence, including any items indicated as attached or included, is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.


D. Brian Shortell

Oct. 26, 2005
Date

EXHIBIT A



云博弘方机械设备进出口贸易有限公司 WINS GLOBE MACHINE EQUIPMENT TRADING CO., LTD.

| Home | | About us | Chemical product | Machine product | Contact us |
|-------------|------------------------|---|------------------|-----------------|------------|
| Tannic Acid | low residue (industry) | Technology index : Description : light brownish powdermoisture: 8.30% residue : 0.89% purity : 81.05% package : A net weight of 25kg packed in woven plastic bags. | | | |
| Tannic Acid | Food additive | Synonym : Tannin, Gallotannic acidMol.form and Mol.wt : C76H52O46 ;1701.18Description : light yellowish to brownish powder, Soluble in 1 part of water or alcohol;soluble in acetone; almost insoluble in chloroform or aether. Specification : correspond the require of standard of food chemistry criterion published by American food and drug administration, the 2th edition Technology index : experiment of resin or dextrin : up to grade ; heavy metal(Pb) %, ≤ 0.002 dry loss% ≤ 9.0 ; As% ≤ 0.0002 ignition residue % ≤ 1.0 Uses : clarificant for beer or liquor, used in the process of pineapple protease , etc. Storage : kept in a well-closed container, protected from light Package : A net weight of 500g packed in woven plastic bags. Outside package is carton, 40bag \times 500g.per box. | | | |
| Tannic Acid | dye | Mol.form and Mol.wt : C76H52O46 ;1701.18 Description : light yellowish to brownish powder, Soluble in 1 part of water or alcohol; soluble in acetone; almost insoluble in chloroform or aether. Technology index : dry loss : 6.0% chroma : 1.0% residue : 2.0% purity : 82% gallic acid content : 5% package : A net weight of 25kg packed in woven plastic bags. | | | |
| Tannic Acid | industry | Mol.form and Mol.wt : C76H52O46 ;1701.18 Description : light yellowish to brownish powder, Soluble in 1 part of water or alcohol; soluble in acetone; almost insoluble in chloroform or aether. Technology index : dry loss % ≤ 9.0 content that can not dissoluble in water % ≤ 0.3 solution colour ≤ 2.0 content ≥ 81.0 uses : widely used in abstract of Ge, manufacture of "Iro ink", anti- corrosion of metal, treatment of slurry in petroleum well, materials of pharmacy industry. | | | |
| Tannic Acid | Reagent | Synonym : Tannin, Gallotannic acid Mol.form and Mol.wt : C76H52O46 ;1701.18 Description : light yellowish to brownish powder, Soluble in 1 part of water or alcohol; soluble in acetone; almost insoluble in chloroform or aether. Specification: correspond the USA standard of chemical reagent (Lawson V. edition), Japanese standard of reagent specification K8929. Technology index : solubility in water: accordignition residue: ≤ 0.10 heavy metal (Pb) : 0.002%experiment of resin or dextrin : up to gradedry loss % ≤ 12.0 uses : can be used in the analytical determination of Ga, Ge, Ta, Ni, W, Ur, etc., to manufacture "Iro ink", act as the clarificant of liquor , as a mordant in dyeing .It is also widely used in pharmaceutical industry. package : A net weight of 250g packed in woven plastic bags. Outside | | | |
| Tannic Acid | medicine | Synonym : Tannin, Gallotannic acidMol.form and Mol.wt : C76H52O46 ;1701.18Description : light yellowish to brownish powder, Soluble in 1 part of water or alcohol; soluble in acetone; almost insoluble in chloroform or aether.Specification : correspond the standard of Chinese health ministry and USA pharmacopoeia(1990 edition) Technology index : As ≤ 3 ppmsolubility in water: accordignition residue, % ≤ 0.2 heavy metal ≤ 30 ppmexperiment of resin or dextrin : up to gradedry loss, % ≤ 9.0 role and uses : antimicrobial, enzyme remover, astringent, can be used to produce bacteriophage, antidote in treatment of tinea and diarrhea. package : A net weight of 500g packed in plastic bags, outside package is glue wooden box, 40 \times 500g per box.. Exported products are packaged in round cardboard, 25kg per barrel. Medicament registered number: 黔卫药准字 (82) 352号。 | | | |

| | | |
|---|------------------------|--|
| Tannic Acid | Chunyu ellagic acid | <p>一、 Specifications:</p> <p>Item Standard Result Remark</p> <p>Appearance Brownish or greyest powder Greyest powder</p> <p>Ellagic acid content % ≥ 90 90</p> <p>Loss on drying % ≤ 5</p> <p>Ash content % ≤ 1.0</p> <p>Heavy metal (Pb) ppm ≤ 10</p> <p>Total bacterial count fu/g ≤ 1000 ≤ 1000</p> <p>二、 Usage</p> <p>1. Function of anticancer and antimutation</p> <p>The experiment shows: Ellagic acid has function of anticancer and antimutation. Ellagic acid and Other ellagic tannin has inhibitory action to immuno-deficiency virus and AMV reverse transcription enzyme and α- or β-cell DNA polymerase</p> <p>2. Ellagic acid has the function of antioxidation because it can chelate with metal and react wit free radical it can prevent other substances from oxidating as a oxidant. It has used during the fruit wine to be matured and food to be processed. To prevent cooking oil and fat and methyl oleate and lard and bean oil from oxidating.</p> <p>三、 Packaging: 20kg/barrel</p> |
| <p>Address: Room 301 No.4 Longtong Building Guizhou Road Heping District Tianjin China</p> <p>Tel: 0086-22-23046976 Fax: 23046975 E-mail: administrator@winsglobe.com</p> | | |

EXHIBIT B

Chongqing Foreign Trade East Asia Corp.

[Home](#)[Product](#)[E-Mail](#)

Tannic acid

We are a leading manufacturer and supplier of Tannic Acid in China. We have exported our fellow products to Japan, European and USA since 1996. We can supply Tannic Acid in powder or in inflated powder.

►[Tannic Acid For Industrial Uses]

Other names: Tannin, Chinese gall tannic acid.

Properties : Light yellow to light brown powder, with a peculiar smell and taste very astringent;

Specifications: Comply with China national standard of GB5308-85.

Technical Data:

content of tannic acid $\geq 81\%$

weight loss after desiccation $\leq 9\%$

insoluble materials in water $\leq 0.6\%$

total color ≤ 2.0

Usage: For the extraction of germanium, the production of ink, rust prevented of metals, and mud treated in petroleum drilling, and as raw material for pharmaceutical industry.

Storage: Keep in airtight containers.

Package: In plastic bags, N.W. 25kg/bag.

►[Tannic Acid For Dyestuff]

Properties: Light yellow to light brown powder, with a peculiar smell and taste very astringent; soluble in a portion of water or alcohol, as well as in acetone, soluble in chloroform or ether.

Technical Data:

weight loss after desiccation $\leq 10\%$

state in water below micro etch

light absorption > 420

content of gallic acid $< 7\%$

total color ≤ 1.0

Usage: In printing and dyeing of textiles, it is used as color fixer, polygenetic dye and fiber deodorizer.

Storage: Keep in airtight containers.

Package: In plastic bags, N.W. 25kg/bag.

►[Tannic Acid For Medical Use]

Other names: Tannin, Chinese gall tannic acid.

Properties: Light yellow to light brown powder, with a peculiar smell and taste very astringent;

Specifications: Comply with the British Pharmacopoeia(Ver. 1999) and the U.S. pharmacopoeia(Ver. 2004).

Technical Data:

content of tannic $\geq 86\%$

insoluble materials $\leq 0.2\%$

weight loss after desiccation $\leq 9\%$

clearness of water up to standard

tree gum or dextrin up to standard

burn remains $\leq 0.2\%$

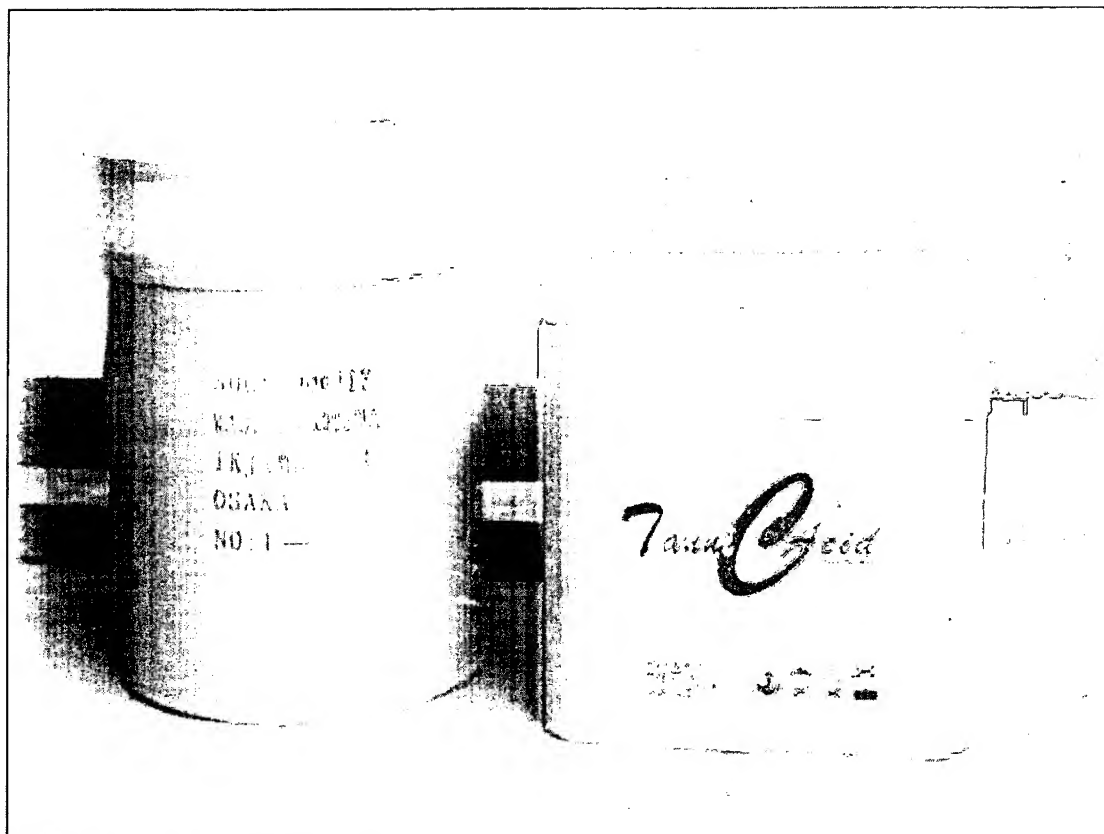
content of gallic acid $< 7\%$

Usage: For the preparations of antibiotics, treating tinea, clearing toxic material and stop dysentery, and also for synthesizing sulphanilamide synergist.

Storage: Keep in dark place and in airtight containers.

Package: In plastic bags, N.W. 25kg/bag; In bottles: 500g/bottle or 250g/bottle.

BEST AVAILABLE COPY



▷[Tannic Acid For Food]

Other names: Tannin, Chinese gall tannic acid.

Properties: Light yellow to light brown powder, with a peculiar smell and taste very astringent.

Technical Data:

weight loss after desiccation $\leq 9\%$

content of tannic $\geq 86\%$

burn remains $\leq 0.2\%$

arsenic $< 3\text{PPm}$

heavy metal $< 0.004\%$

insoluble materials $\leq 0.2\%$

tree gum or dextrin test up to standard

resin test up to standard

Usage: As the antioxidant and antiseptic for foods, clearer for beverages and wines, and decolorant for soy sauce.

Storage: Keep in dark place and in airtight containers.

Package: In plastic bags, N.W. 25kg/bag; In bottles: 500g/bottle or 250g/bottle.

BEST AVAILABLE COPY

►[Tannic Acid For Brewage]

Other names: Tannin, Chinese gall tannic acid.

Properties: Light yellow powder, with a peculiar smell and taste very astringent.

Technical Data:

weight loss after desiccation $\leq 9\%$

content of tannic $\geq 96\%$

burn remains $\leq 0.2\%$

arsenic $< 3\text{PPm}$

heavy metal $< 0.004\%$

insoluble materials $\leq 0.2\%$

tree gum or dextrin test up to standard

resin test up to standard

Usage: As the antioxidant and antiseptic for foods, clearer for beer, beverages and wines, and decolorant for soy sauce.

Storage: Keep in dark place and in airtight containers.

Package: In Box : N.W. 25kg/box; In bottles: 500g/bottle or 250g/bottle.



ADD : B4-3-1,29,West Huahuiyuan Rd.,Yubei,Chongqing,China

Post Code :401147

Tel : 86-23-6790 8775, 86-23-6790 8771

Fax : 86-23-67907249

Email : gaoweicq@online.cq.cn

Website : <http://www.eaco.com.cn>